

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1-15. (Cancelled)

16. (Currently amended): A method for calibrating a panoramic camera system that captures overlapping single view images that are seamed together into a panorama, the method comprising:

capturing a first single view image of a structure, the first single view image including first indicia along an edge of the structure;

capturing a second single view image of the structure, the second single view image including second indicia along the same edge of the structure, wherein the first and second single view images are to be seamed together along the edge; and

~~adjusting one or more camera parameters~~ adjusting one or more camera parameters for a first camera element within the panoramic camera system and adjusting one or more camera parameters for a second camera element within the panoramic camera system to seam together the first indicia with the second indicia, wherein the first single view image is captured by the first camera element and the second single view image is captured by the second camera element.

17. (Previously presented): The method of claim 16 wherein the step of adjusting camera parameters comprises:

adjusting one or more camera parameters, attempting to make the first indicia coincide with the second indicia.

18. (Currently amended): A method for calibrating a panoramic camera system that captures overlapping single view images that are seamed together into a panorama, the method comprising:

capturing a first single view image of a structure, the first single view image including first indicia along an edge of the structure;

capturing a second single view image of the structure, the second single view image including second indicia along the same edge of the structure, wherein the first and second single view images are to be seamed together along the edge;

~~The method of claim 17 wherein the step of adjusting camera parameters comprises:~~

~~estimating locations of the first indicia;~~

~~estimating locations of the second indicia; and~~

~~adjusting one or more camera parameters, attempting to minimize a squared error~~

~~between the locations of the first indicia and the locations of the second indicia,~~

~~attempting to make the first indicia coincide with the second indicia.~~

19. (Previously presented): The method of claim 17 wherein the edge of the structure contains a row of indicia, the first indicia includes the row of indicia and the second indicia includes the same row of indicia.

20. (Previously presented): The method of claim 17 wherein the edge of the structure contains two rows of indicia, the first indicia includes one of the rows of indicia and the second indicia includes the other row of indicia.

21. (Previously presented): The method of claim 20 wherein the two rows are separated by a spacing that accounts for parallax between capture of the first single view image and capture of the second single view image.

22. (Cancelled)

23. (Previously presented): The method of claim 16 wherein at least one of the camera parameters is selected from a group consisting of offset, distortion, brightness and contrast.

24. (Previously presented): The method of claim 16 wherein at least one of the camera parameters is selected from a group consisting of heading, pitch, bank, and field of view.

25. (Previously presented): The method of claim 16 wherein the step of adjusting camera parameters comprises:

automatically locking out one or more camera parameters during adjustment of the camera parameters.

26. (Previously presented): The method of claim 16 wherein the indicia are shaped so they assume a preselected shape after distortion by image capture.

27. (Currently amended): A method for calibrating a panoramic camera system that captures overlapping single view images that are seamed together into a panorama, the method comprising:

capturing a first single view image of a structure, the first single view image including first indicia along an edge of the structure, ~~The method of claim 16 wherein:~~ the step of capturing the first single view image comprises a first lens capturing the first single view image, wherein the panoramic camera system comprises a multi-lens camera with first and second lenses; and

capturing a second single view image of the structure, the second single view image including second indicia along the same edge of the structure, wherein the step of capturing the second single view image comprises the second lens capturing the second single view image and the first and second single view images are to be seamed together along the edge; and

adjusting one or more camera parameters to seam together the first indicia with the second indicia.

28. (Previously presented): The method of claim 27 wherein the lenses within the multi-lens camera are oriented orthogonally to each other for capturing different faces of a cube.

29. (Currently amended): A computer readable medium containing a software program for implementing a method for calibrating a panoramic camera system that captures overlapping single view images that are seamed together into a panorama, wherein the panoramic camera system comprises a multi-lens camera, a first single view image is captured by a first camera element within the multi-lens camera, and a second single view image is captured by a second camera element within the multi-lens camera, the method comprising:

receiving a first single view image of a structure, the first single view image including first indicia along an edge of the structure;

receiving a second single view image of the structure, the second single view image including second indicia along the same edge of the structure, wherein the first and second single view images are to be seamed together along the edge; and

adjusting camera parameters to seam together the first indicia with the second indicia;

recording adjusted parameters for the first camera element along with an identification of the first camera element; and

recording adjusted parameters for the second camera element along with an identification of the second camera element.

30. (Previously presented): The computer readable medium of claim 29 wherein the method further comprises:

recording the adjusted camera parameters along with an identification of the panoramic camera system.

31. (Cancelled)

32. (Previously presented): The computer readable medium of claim 29 wherein the method further comprises:

retrieving and using the adjusted camera parameters to seam together other single view images captured by the panoramic camera system.

33-34. (Cancelled)

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